

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

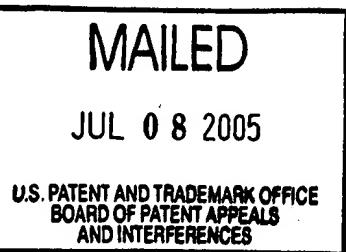
BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte LOTHAR FAUTH

Appeal No. 2005-1217  
Application No. 09/719,469

ON BRIEF

Before FRANKFORT, MCQUADE, and BAHR, Administrative Patent Judges.  
MCQUADE, Administrative Patent Judge.



DECISION ON APPEAL

Lothar Fauth appeals from the final rejection of claims 8, 9 and 12 through 14. Claims 10 and 11, the only other claims pending in the application, stand allowed.

THE INVENTION

The invention relates to "a method for mounting a worm on an armature shaft of an armature of an electric motor, and to an armature produced by the method" (specification, page 1).

Representative claims 8 and 12 read as follows:

8. A method for producing an armature shaft of an electric motor having a worm, wherein the worm (30) is produced, at the end of the armature assembly (10), by reshaping the armature shaft (12).

12. The armature shaft produced by the method of claim 8, wherein the worm (30) has a greater outer diameter than does the armature shaft (12) over its remaining length.

THE PRIOR ART

The references relied on by the examiner to support the final rejection are:

Kobayashi et al. 4,589,299 May 20, 1986  
(Kobayashi)

Thrasher, Jr. et al. 4,885,948 Dec. 12, 1989  
(Thrasher)

THE REJECTIONS

Claims 8 and 9 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kobayashi.

Claims 8, 9 and 12 through 14 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Thrasher.

Attention is directed to the brief (filed October 24, 2003) and answer (mailed December 2, 2003) for the respective positions of the appellant and examiner regarding the merits of these rejections.

DISCUSSION

I. The 35 U.S.C. § 102(b) rejection of claims 8 and 9 as being anticipated by Kobayashi

Kobayashi discloses an electric motor 11 comprising a yoke 12, a rotatable motor shaft 16 extending through the yoke, a field magnet 13 on the inner surface of the yoke, an armature 14 on the motor shaft within the field magnet, a commutator 15 on the shaft and brush 17 on the yoke for supplying electric current to the armature, and worms 21 and 22 formed on one end of the shaft by rolling.

Anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984). In other words, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. Scripps Clinic & Research Found. v. Genentech Inc., 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991). It is not necessary that the reference teach what the subject application teaches, but only that the claim read on something

disclosed in the reference, i.e., that all of the limitations in the claim be found in or fully met by the reference. Kalman v. Kimberly Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026 (1984).

The appellant contends that the rejection of claim 8 as being anticipated by Kobayashi is unsound because the reference does not meet the claim limitation calling for the worm (30) to be "produced, at the end of the armature assembly (10), by reshaping the armature shaft (12)." More particularly, the appellant submits that the foregoing limitation "requires that the individual parts of the armature be assembled on the armature shaft before the worm is produced" (brief, page 6), and that "[i]n Kobayashi et al, there is no teaching or suggestion that the worm is formed after all the armature component parts are assembled on the armature shaft as required by claim 8" (brief, page 7).

During patent examination, claims are to be given their broadest reasonable interpretation consistent with the underlying specification without reading limitations from the specification into the claims. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969). Claim 8 neither mentions individual

armature parts nor requires that such parts be assembled on the armature shaft before the worm is produced. As correctly pointed out by the examiner, the appellant's position to the contrary stems from an improper reading of limitations from the specification into the claim.

It is not disputed that Kobayashi's worms 21 and 22 are produced by reshaping (i.e., rolling) the end of armature shaft 16. The qualification in claim 8 that the worm be produced "at the end of the armature assembly (10)," given its broadest reasonable interpretation consistent with the underlying specification, merely defines the location of the worm, not the point in time at which it is produced. This recited location finds full response in the disclosed location of Kobayashi's worms 21 and 22. Hence, even though Kobayashi does not teach that the worms are formed after all the armature component parts are assembled on the armature shaft, it nonetheless meets all of the limitations actually recited in claim 8.

Accordingly, we shall sustain the standing 35 U.S.C. § 102(b) rejection of claim 8 as being anticipated by Kobayashi.

We also shall sustain the standing 35 U.S.C. § 102(b) rejection of dependent claim 9 as being anticipated by Kobayashi

since the appellant has not challenged such with any reasonable specificity, thereby allowing claim 9 to stand or fall with parent claim 8 (see In re Nielson, 816 F.2d 1567, 1572, 2 USPQ2d 1525, 1528 (Fed. Cir. 1987)).

II. The 35 U.S.C. § 102(b) rejection of claims 8, 9 and 12 through 14 as being anticipated by Thrasher

Thrasher discloses an electric actuator 10 comprising motor and gear housings 12 and 14, an armature shaft 18 extending within the housings, an armature assembly 16 on the shaft, a worm 20 formed on one end of the shaft for engaging a gear 22, and a shaft support means in the form of a damper 28 intermediate the armature and worm. The damper, which is formed of a resilient yet substantially rigid material such as a nylon 6/6, consists of an outer annular collar 30 and a plurality of spring-like fingers 32 protruding inwardly from the collar to contact the armature shaft. Thrasher teaches that

[t]he collar 30 has an outer diameter 34 which is greater than the inner diameter 35 of the gear housing 14, such that the damper 28 can be press fit into the gear housing 14 sufficiently tight that the damper will be lodged in place and stay put.

The inner diameter 36 of the collar 30 is large enough so that the damper 28 can slide over the worm 20, which may be formed by rolling and therefore have a diameter greater than that of the armature shaft 18. With the damper 28 press fit into the gear housing 14, the assembly of the gear housing 14, gear 22 and damper 28 can be joined with the pre-assembled motor housing

12 as the armature shaft 18 slides through the damper  
28 into the gear housing 14, which is then attachable  
to the motor housing 12 [column 2, line 62, through  
column 3, line 8].

The appellant urges that the subject matter recited in claims 8 and 12 distinguishes over that disclosed by Thrasher for reasons substantively identical to those advanced with respect to the rejection based on Kobayashi. As explained above, such line of argument is not persuasive.

Consequently, we shall sustain the standing 35 U.S.C. § 102(b) rejection of claims 8 and 12 as being anticipated by Thrasher.

We also shall sustain the standing 35 U.S.C. § 102(b) rejection of dependent claim 9 as being anticipated by Thrasher since the appellant has not challenged such with any reasonable specificity, thereby allowing claim 9 to stand or fall with parent claim 8 (see Nielson, supra).

We shall not sustain, however, the standing 35 U.S.C. § 102(b) rejection of claims 13 and 14 as being anticipated by Thrasher.

Claims 13 and 14 depend from claim 12 and respectively recite a bearing seat and a shaft bearing mounted on the armature

shaft. For purposes of the rejection, the examiner considers these elements to be met by Thrasher's damper 28. As indicated above, Thrasher teaches that damper 28 is press fit into housing 14 so as not to move and contacts shaft 18 only through spring-like fingers 32. Considering this disclosure, a person of ordinary skill in the art would view the damper as being mounted to the housing 14 rather than on the shaft 18. Hence, the examiner's finding that damper 28 meets the bearing seat and shaft bearing limitations in claims 13 and 14 is unsound.

SUMMARY

The decision of the examiner:

- a) to reject claims 8 and 9 as being anticipated by Kobayashi is affirmed; and
- b) to reject claims 8, 9 and 12 through 14 as being anticipated by Thrasher is affirmed with respect to claims 8, 9 and 12, and reversed with respect to claims 13 and 14.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

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